This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Previously Presented) A computer implemented method for allowing communication among processing nodes in a system, comprising:

receiving, with a host communication object executing in a communication node, a command from a host system to instruct a motion object executing in a component node to control an electro-mechanical component of the system to perform an operation, wherein the component node controls the electro-mechanical component of the system;

generating, with the host communication object, a message, including the command to instruct the motion object, to send to a work management object executing in a controller node, wherein the controller node manages system commands;

multitasking, by the communication, controller and component nodes, multiple program objects, wherein each of the communication, controller and component nodes;

transmitting and receiving data via a communication interface, by the communication, controller and component nodes, with the other nodes, wherein each node is associated with one component of the system; and

operating, by the communication, controller and component nodes, as a source node receiving a request from a source object in the source node to send a message to a destination object executing in a destination node by:

receiving a request from the source object executing in the source node to send a message to the destination object executing in the destination node;

determining whether the destination node and source node are a same node;

invoking an operating system command to transmit the message to the destination object within the source node if the destination node is the source node; and

if the destination node is not the source node, then transmitting the message to the destination node through the communication interface

operating, by the communication, controller and component nodes, as the destination node by invoking an operating system command in the destination node to transmit the message received from the source node to the destination object within the destination node.

2.   (Previously Presented) The method of claim 1, wherein there is a message queue associated with each object in each node, and wherein the invoked operating system command in the source node transmits the message to the message queue associated with the destination object.

3.   (Original) The method of claim 1, wherein transmitting, with the source node, the message to the destination node over the communication interface, comprises:

determining, in the source node, an address of the destination node that addresses the destination node when transmitting messages through the communication interface;

generating, in the source node, at least one message packet including the message, the determined address, and an address of the destination object; and

transmitting, with the source node, the at least one message packet to the destination node over the communication interface.

4.   (Original) The method of claim 3, wherein the communication interface comprises a bus and wherein including the address of the destination node in the message causes the destination node to read the at least one message packet transmitted on the bus.

5.   (Previously Presented) The method of claim 2, wherein sending the message to the destination object in the destination node comprises:

determining, in the destination node, the destination object for at least one message packet including the message;

extracting, in the destination node, the message from the message packet, wherein the invoked operating system command in the destination node transmits the message to the message queue associated with the destination object.

6.   (Previously Presented) The method of claim 1, wherein transmitting, with the source node, the message to the destination node comprises:

invoking an operating system command, with the source object, to send the message to a message queue associated with a source network object in the source node;

determining, with the source network object, an address of the destination node that addresses the destination node when transmitting messages through the communication interface;

generating, with the source network object, at least one message packet including the message, the determined address of the destination node, and an address of the destination object;

transmitting, with the source network object, the at least one message packet to the destination node over the communication interface; and

receiving, with a destination network object, the at least one message packet, wherein the destination network object invokes the operating system command in the destination node to transmit the message to a message queue associated with the destination object in the destination node.

7.   (Previously Presented) The method of claim 6, wherein routing the message, with the destination network object in the destination node, to the destination object comprises:

determining the destination object for the at least one message packet;

extracting the message from the message packet, wherein the operating system command is invoked to transmit the message to the message queue associated with the destination object.

8.   (Canceled)

9.   (Canceled)

10.   (Previously Presented) The method of claim 1, wherein the system comprises a storage library system, and the electro-mechanical component comprises a component of a storage library system.

11.   (Original) The method of claim 1, wherein each object is assigned a unique object identifier in the system, and wherein the unique identifier is used within all nodes to identify the destination object to receive the message.

12.   (Original) The method of claim 11, wherein each node is assigned a unique node identifier used within all nodes to identify the destination node to receive the message.

13.   (Original) The method of claim 12, wherein a function call receives the request from the source object to send the message to the destination object, determines whether the destination node is the same node, sends the message to the destination object or causes the transmittal of the message to the destination node over the communication interface, and maintains the object and node identifier assignment, further comprising:

updating the node and object identifier used by each function call in each node to reflect a modification to the arrangement of nodes or objects in the system.

14.   (Original) The method of claim 1, wherein each node transmits signals to determine an availability of other nodes on the communication interface.

15-48. (cancelled)